

$D_{s1}^*(2700)^\pm$ $I(J^P) = 0(1^-)$ **$D_{s1}^*(2700)^+$ MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2709 ± 4 OUR AVERAGE				
[2709 $^{+9}_{-6}$ MeV OUR 2012 AVERAGE]				
2709.2 $\pm 1.9 \pm 4.5$	52k	1 AAIJ	12AU LHCb $p p \rightarrow (DK)^+ X$ at 7 TeV	
2710 $\pm 2 \pm 12$	10.4k	2 AUBERT	09AR BABR $e^+ e^- \rightarrow D^{(*)} K X$	
2708 $\pm 9 \pm 11$	182	BRODZICKA 08 BELL	$B^+ \rightarrow D^0 \bar{D}^0 K^+$	
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2688 $\pm 4 \pm 3$		3 AUBERT,BE	06E BABR $10.6 e^+ e^- \rightarrow DK X$	
1 From the combined fit of the $D^+ K_S^0$ and $D^0 K^+$ modes in the model including the $D_{s2}^*(2573)^+$, $D_{s1}^*(2700)^+$ and spin-0 $D_{s,J}^*(2860)^+$.				
2 From simultaneous fits to the two DK mass spectra and to the total $D^* K$ mass spectrum.				
3 Superseded by AUBERT 09AR.				

NODE=M182M

NODE=M182M
NEW **$D_{s1}^*(2700)^+$ WIDTH**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
117 ± 13 OUR AVERAGE				
[125 ± 30 MeV OUR 2012 AVERAGE]				
115.8 $\pm 7.3 \pm 12.1$	52k	4 AAIJ	12AU LHCb $p p \rightarrow (DK)^+ X$ at 7 TeV	
149 $\pm 7 \pm 39$	10.4k	5 AUBERT	09AR BABR $e^+ e^- \rightarrow D^{(*)} K X$	
108 $\pm 23 \pm 36$	182	BRODZICKA 08 BELL	$B^+ \rightarrow D^0 \bar{D}^0 K^+$	
• • • We do not use the following data for averages, fits, limits, etc. • • •				
112 $\pm 7 \pm 36$		6 AUBERT,BE	06E BABR $10.6 e^+ e^- \rightarrow DK X$	
4 From the combined fit of the $D^+ K_S^0$ and $D^0 K^+$ modes in the model including the $D_{s2}^*(2573)^+$, $D_{s1}^*(2700)^+$ and spin-0 $D_{s,J}^*(2860)^+$.				
5 From simultaneous fits to the two DK mass spectra and to the total $D^* K$ mass spectrum.				
6 Superseded by AUBERT 09AR.				

NODE=M182M;LINKAGE=AA

NODE=M182M;LINKAGE=AB

NODE=M182M;LINKAGE=AU

NODE=M182W

NODE=M182W
NEW **$D_{s1}^*(2700)^\pm$ DECAY MODES**

Mode
$\Gamma_1 D K$
$\Gamma_2 D^0 K^+$
$\Gamma_3 D^+ K_S^0$
$\Gamma_4 D^* K$
$\Gamma_5 D^{*0} K^+$
$\Gamma_6 D^{*+} K_S^0$

DESIG=2

DESIG=1

DESIG=3

DESIG=4

DESIG=5

DESIG=6

NODE=M182215;NODE=M182

 $D_{s1}^*(2700)^\pm$ BRANCHING RATIOS

$\Gamma(D^* K)/\Gamma(DK)$	EVTS	DOCUMENT ID	TECN	Γ_4/Γ_1
0.91$\pm 0.13 \pm 0.12$	10.4k	7 AUBERT	09AR BABR $e^+ e^- \rightarrow D^{(*)} K X$	
⁷ From the average of the corresponding ratios with $D^{(*)0} K^+$ and $D^{(*)+} K_S^0$.				

NODE=M182225

NODE=M182R01
NODE=M182R01

NODE=M182R01;LINKAGE=AU

$\Gamma(D^{*0} K^+)/\Gamma(D^0 K^+)$	EVTS	DOCUMENT ID	TECN	Γ_5/Γ_2
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.88 $\pm 0.14 \pm 0.14$	7716	8 AUBERT	09AR BABR $e^+ e^- \rightarrow D^{(*)} K X$	
8 From the $D^{*0} K^+$ and $D^0 K^+$, where $D^{*0} \rightarrow D^0 \pi^0$.				

NODE=M182R02
NODE=M182R02

NODE=M182R02;LINKAGE=AU

$\Gamma(D^{*+} K_S^0)/\Gamma(D^+ K_S^0)$	Γ_6/Γ_3				
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1.14±0.39±0.23	2700	⁹ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$	
⁹ From the $D^{*+} K_S^0$ and $D^+ K_S^0$, where $D^{*+} \rightarrow D^+ \pi^0$.					

NODE=M182R03
NODE=M182R03

NODE=M182R03;LINKAGE=AU

NODE=M182

REFID=54735
REFID=53135
REFID=52144
REFID=51512

$D_{s1}^*(2700)^\pm$ REFERENCES

AAIJ	12AU	JHEP 1210 151	R. Aaij <i>et al.</i>	(LHCb Collab.)
AUBERT	09AR	PR D80 092003	B. Aubert <i>et al.</i>	(BABAR Collab.)
BRODZICKA	08	PRL 100 092001	J. Brodzicka <i>et al.</i>	(BELLE Collab.)
AUBERT,BE	06E	PRL 97 222001	B. Aubert <i>et al.</i>	(BABAR Collab.)